

1. (Three Times Amended) A method for producing a polycyclic aromatic hydrocarbon comprising:

- a. combusting a carbon-containing material in a flame to condense the carbon-containing material in the flame; and
- b. collecting at least a portion of a condensed phase comprising a liquid phase in the flame;

wherein the condensed phase comprises at least one polycyclic aromatic hydrocarbon. - -

46. (Amended) A method for producing a polycyclic aromatic hydrocarbon, the method comprising:

- a. combusting at least one carbon-containing material in a flame to condense the carbon-containing material in the flame; and
- b. collecting at least a portion of a condensed phase comprising a liquid phase in the flame;

wherein the condensed phase comprises pyrene. - -

49. (Amended) A method for producing a polycyclic aromatic hydrocarbon, the method comprising:

- a. combusting a carbon-containing material in a flame to condense the carbon-containing material in the flame; and
- b. collecting at least a portion of a condensed phase comprising a liquid phase in the flame;